

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

HONEYWELL INTERNATIONAL, INC.,)	
AND HONEYWELL INTELLECTUAL)	
PROPERTIES, INC.,)	
)	
Plaintiffs,)	
)	C.A. No. 99-309 (GMS)
v.)	
)	
HAMILTON SUNSTRAND CORP.,)	
)	
Defendant.)	

MEMORANDUM

I. INTRODUCTION

In the above-captioned action plaintiffs Honeywell International, Inc. and Honeywell Intellectual Properties, Inc. (collectively, “Honeywell”) accuse defendant Hamilton Sunstrand Corp. (“HSC” or “Sunstrand”) of infringing U.S. Patent No. 4,380,893 (filed Feb. 19, 1981) (“the ‘893 patent”) and U.S. Patent No. 4,428,194 (filed Sept. 27, 1982) (“the ‘194 patent”). After a ten-day trial in early 2001, a jury found infringement of both patents under the doctrine of equivalents, and awarded Honeywell more than \$46.5 million in damages. HSC subsequently appealed. On June 2, 2004, an *en banc* panel of the Federal Circuit remanded the case back to this court for further proceedings. In accordance with the remand instructions, the court held a two-day bench trial on March 23-24, 2006 to determine whether prosecution history estoppel bars Honeywell from asserting the doctrine of equivalents. For the following reasons, the court holds that Honeywell is so barred by prosecution history estoppel.

II. BACKGROUND

A. Honeywell's Patented Technology

The '893 Patent and the '194 Patent have a common specification. The only difference between the two patents is that the '894 Patent claims an apparatus embodying the invention, whereas the '194 Patent claims a method embodying the invention. The Federal Circuit's *en banc* opinion provides a succinct description of the invention claimed by both patents:

The Honeywell patents are directed to an aircraft auxiliary power unit ("APU"), a small gas turbine engine usually located in the tail section of an airplane. The APU generates electricity and incorporates a load compressor to provide compressed air needed both to start the aircraft's main engines and to control the environment of the aircraft's cabin during flight. During flight, the amount of compressed air required for these purposes fluctuates substantially. A valve is used to control the amount of air exiting the compressor through the main air duct, which supplies compressed air to the aircraft's systems. Rapid changes in the demand for compressed air needed can produce "surge," a flow instability that occurs when pressure builds up in the main air duct. In a surge condition, the air attempting to exit the compressor's main air duct is unable to do so. Instead the airflow reverses direction, surging back into the compressor and potentially damaging the APU. The APU must therefore be designed in such a way as to control surge. Prior systems controlled surge by drawing in more air than was needed and venting (bleeding) the excess through a surge bleed valve in order to reduce pressure in the main air duct. Such systems maintained sufficient output airflow, effectively controlling surge, but were inefficient in operation and wasteful of energy.

The Honeywell APU is designed to be more efficient by avoiding excess air bleeding in its control of surge. To do this it is necessary to determine when and how far to open the surge bleed valve in order to maintain a level of flow sufficient to avoid surge. To reach this end, Honeywell's invention establishes a "set point" that represents the minimum flow at which surge can safely be avoided. In the claimed invention, "ambient air . . . is drawn through a set of adjustable inlet guide vanes." '893 patent, col. 3, ll.64-65. The value of the set point is selected "as a function of the position of said inlet guide vanes." *Id.*, col. 12, ll.11-12; see also '194 patent, col. 12, ll.15-16. The set point is compared to a "flow-related parameter" that represents airflow out of the compressor as determined by a sensor. '893 patent, col. 2, ll.47-48; '194 patent, col. 2, ll.48-49. Thus a comparison is made between the actual flow conditions (represented by the flow-related parameter) and the desired flow conditions (represented by the set point). If the system determines that airflow out of the main air duct is too low, the surge bleed valve will be opened to prevent

the build up of excess pressure leading to surge.

Honeywell Int'l v. Hamilton Sundstrand Corp., 370 F.3d 1131, 1134 (Fed. Cir. 2004).

B. HSC's Accused Product

The accused product in this case is an APU manufactured by HSC known as the APS 3200. It also “uses an active surge control system that compares a flow-related parameter to a set point and adjusts the surge bleed valve in response.” *Id.* at 1136. However, “Sundstrand’s device establishes a set point that is dependent upon ambient air temperature, rather than a measurement of inlet guide vane position. This set point is compared to a flow-related parameter called DELPQP.” *Id.* “The DELPQP value used in the accused device has an unusual characteristic. In most airflow conditions the value of DELPQP is directly proportional to the amount of airflow. At high levels of flow, however, DELPQP becomes inversely proportional to the amount of flow, i.e., above a certain level of flow [i.e., the speed of sound] DELPQP decreases instead of increases as flow increases. Reliance upon DELPQP under these conditions might incorrectly characterize a safe high flow situation as an unsafe low flow situation, resulting in the surge bleed valve being opened to increase flow unnecessarily, causing excess APU fuel consumption.” *Id.* at 1136 n.1. “Because of characteristics unique to DELPQP, the APS 3200 blocks control signals used to operate the surge bleed valve during extreme high flow conditions. This prevents unnecessary bleeding of air during such conditions. The determination of whether to block these control signals is based in part on the position of the APS 3200’s inlet guide vanes.” *Id.* at 1136. More specifically, if the inlet guide vanes (or “IGVs”) are open wide, the APS 3200 is operating in a safe high flow situation and bleeding is unnecessary. However, if the IGVs are barely open, the APS 3200 could be operating in an unsafe low flow situation and bleeding may become necessary.

C. The Claims at Issue

Only three independent claims are at issue on remand: claims 8 and 19 of the '893 patent and claim 4 of the '194 patent. All three of those claims are reproduced below, with the controversial IGV limitations emphasized in italics:

8. A gas turbine engine accessory power unit having a fluctuating compressed air supply demand, said accessory power unit comprising:

- (a) a compressor having adjustable inlet guide vanes;
- (b) duct means for receiving compressed air discharged from said compressor and supplying the received air to the pneumatically-powered apparatus;
- (c) surge bleed means operable to exhaust from said duct means a selectively variable quantity of air to assure at least a predetermined minimum flow rate through said duct means and thereby prevent surge of said compressor;
- (d) sensing means for sensing the value of a predetermined, flow-related parameter within said duct means and generating an output signal indicative of said value, said value of said flow-related parameter being substantially independent of the temperature of the compressed air;
- (e) comparator means for receiving said sensing means output signal and generating an error signal representing the difference between the sensed value of said parameter and a desired value thereof, said comparator means having an adjustable control set point representing said desired value of said parameter;
- (f) means for transmitting to said comparator means a reset signal for varying said set point as a function of the position of said inlet guide vanes in accordance with a predetermined reset schedule; and*
- (g) control means for receiving said error signal and transmitting to said surge bleed means a control signal to operate said surge bleed means, the magnitude of said control signal having, relative to the magnitude of said error signal, a proportional component and an integral component,

whereby said minimum flow rate through said duct means is essentially constant regardless of the compressed air supply demand of the pneumatically-powered apparatus.

'893 patent, col.11, l.52 thru col.12, l.23 (emphasis added).

19. A control system for assuring a substantially constant minimum flow rate through a duct receiving air discharged from a compressor or the like having adjustable inlet guide vanes, the duct having a supply outlet connected to pneumatically-operated apparatus having a variable supply air demand, the duct further having an exhaust outlet, said control system comprising:

(a) a flow regulating device adapted to be positioned in the exhaust outlet and operable to selectively vary air flow outwardly therethrough;

(b) a sensing device having a sensing portion adapted to be positioned in the duct to sense therein a predetermined parameter related to the air flow rate through the duct, said sensing device further having an output portion;

(c) an adjustable set point comparator having an input portion coupled to said output portion of said sensing device, and an outlet adapted to generate an error signal;

(d) a proportional controller having an inlet coupled to said output of said comparator and further having an outlet;

(e) an integral controller having an inlet coupled to said outlet of said comparator and further having an outlet;

(f) a summer having a first inlet coupled to said outlet of said proportional controller, a second inlet coupled to said outlet of said integral controller, and an outlet coupled to said flow regulating device; and

(g) a guide vane position sensor and a function generator coupled in series between the inlet guide vanes and said input portion of said comparator.

Id., col.14, 1.62 thru col.16, 1.22 (emphasis added).

4. A method of utilizing a compressor of a gas turbine engine to power pneumatically-operated apparatus having a variable inlet air flow demand, the compressor having adjustable inlet guide vanes, said method comprising the steps of:

(a) interconnecting a supply duct between the compressor and the pneumatically-operated apparatus;

(b) flowing discharge air from the compressor through said supply duct to the pneumatically-operated apparatus;

(c) maintaining an essentially constant minimum supply duct flow rate, despite fluctuations in the flow rate of air received by the pneumatically-operated apparatus,

by exhausting air from said supply duct in response to variations therein of the value of a predetermined, flow-related parameter, the flow rate of air exhausted from said supply duct being related to the magnitude of said parameter value variations in both a proportional and time-integral manner, said maintaining step including the steps of providing an outlet passage from said supply duct, positioning in said outlet passage a surge bleed valve operable to selectively vary the flow of air outwardly through said outlet passage, generating an integral control signal in response to said variation in said flow-related parameter, generating a proportional control signal in response to said variations in said flow-related parameter, and simultaneously utilizing said integral and proportional control signals to operate said surge bleed valve; and

(d) adjusting the relationship between the magnitudes of said integral and proportional control signals and the magnitudes of said parameter variations as a function of the position of the inlet guide vanes.

‘194 patent, col.10, l.64 thru col.12, l.16 (emphasis added).

D. Prosecution History

Setting this case apart from many of the other patent cases that come before this court is the relatively straightforward nature of the relevant prosecution history:

[A]ll of the asserted claims were originally dependent on other claims in Honeywell’s patent applications (application claims 16 and 32 of the ‘893 patent and application claims 48 and 49 of the ‘194 patent) that did not contain the inlet guide vane limitation. These claims were rejected as obvious in light of the prior art during the prosecution of Honeywell’s patents. Application claims 17 and 35 of the ‘893 patent and application claim 51 of the ‘194 patent, which further included the inlet guide vane limitation, were not allowed only because they were dependent on the rejected independent application claims. The examiner indicated that application claims 17, 35 and 51 would be allowable if rewritten into independent form. In response, the rejected independent claims were cancelled and application claims 17, 35 and 51 were amended to expressly incorporate the limitations of the rejected independent claims. The amended application claims issued respectively as claims 8 and 19 of the ‘893 patent and claim 4 of the ‘194 patent

Honeywell, 370 F.3d at 1137. As HSC correctly points out, rather than traversing the examiner’s objection, Honeywell merely accepted the examiner’s invitation to rewrite the dependant claims as allowable independent claims.

E. Procedural History

Prior to the first trial in this case, HSC moved for summary judgment on the issue of doctrine of equivalents, arguing that the amendments during prosecution (i.e., rewriting dependant claims as independent claims) amounted to a narrowing amendment under *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 234 F.3d 558 (Fed. Cir. 2000) (*en banc*) (“*Festo I*”), and therefore barred Honeywell from asserting the doctrine of equivalents with regard to the IGV limitations. That motion was denied and the issue was submitted to the jury for its consideration. Although the jury found no literal infringement, it did find that the APS 3200 infringed the patents under the doctrine of equivalents. On appeal, the Federal Circuit held that Honeywell’s amendments did in fact narrow the claims, and thus raised a rebuttable presumption that Honeywell surrendered the doctrine of equivalents with regard to the IGV limitations. *Honeywell*, 370 F.3d at 1144. This court’s instructions on remand are to determine whether Honeywell can overcome that presumption. *Id.* If Honeywell is unable to do so, then “the jury verdict cannot stand.” *Id.*

III. DISCUSSION

The first step the court must take in executing its instructions on remand is to precisely articulate the equivalent element in question. Honeywell argues that the equivalent element is “the Sunstrand APS 3200 surge control system with its unique DELPQP flow-related parameter and its particular use of inlet guide vane position as part of the high-flow logic that that parameter occasioned.” (D.I. 416 ¶ 66.) In other words, Honeywell contends that the equivalent element in the accused product is the use of (1) a static pressure differential (i.e., DELPQP), which can be indicative of surge only if the APU is experiencing low flow, in combination with (2) IGV position, which is indicative of whether the APU is experiencing low flow or high flow, to detect surge.

Although HSC disagrees with Honeywell on this point, it is sufficient for present purposes to assume *arguendo* that Honeywell's articulation is correct as a matter of law.

In order to successfully rebut the presumption of surrender,¹ “the patentee must demonstrate that the alleged equivalent would have been unforeseeable at the time of the narrowing amendment, that the rationale underlying the narrowing amendment bore no more than a tangential relation to the equivalent in question, or that there was ‘some other reason’ suggesting that the patentee could not reasonably have been expected to have described the alleged equivalent.” *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 344 F.3d 1359, 1369 (Fed. Cir. 2003) (*en banc*) (“*Festo III*”). Each of these three rebuttal criteria are addressed below.

A. Unforeseeability

Of the three criterion, unforeseeability is perhaps the easiest to apply because it is a familiar concept in the law. In *Festo III*, the Federal Circuit gave the following guidance:

This criterion presents an objective inquiry, asking whether the alleged equivalent would have been unforeseeable to one of ordinary skill in the art at the time of the amendment. Usually, if the alleged equivalent represents later-developed technology (e.g., transistors in relation to vacuum tubes, or Velcro (R) in relation to fasteners) or technology that was not known in the relevant art, then it would not have been foreseeable. In contrast, old technology, while not always foreseeable, would more likely have been foreseeable. Indeed, if the alleged equivalent were

¹ In a memorandum dated January 8, 2001, the court held that “Honeywell did not surrender the elements at issue during the prosecution of the patents at issue” and that “Honeywell did not give up an embodiment of the invention with the inlet guide vane.” *Honeywell International, Inc. v. Hamilton Sunstrand Corp.*, No. 99-309, 2001 U.S. Dist. LEXIS 2155, at *19-*20 (D. Del. Jan. 8, 2001). Honeywell argues on remand that “[t]hose factual findings were left undisturbed by the Federal Circuit’s legal rulings.” (D.I. 416 ¶ 131.) That argument is not convincing for two reasons. First, the court’s holdings were *legal* conclusions, not *factual* conclusions. *Honeywell*, 2001 U.S. Dist. LEXIS 2155, at *14 (“Whether prosecution history bars an assertion of infringement under the doctrine of equivalents is a matter of law for the court to decide.”). Second, those legal conclusions are the very conclusions overruled by the Federal Circuit’s *en banc* decision. *Honeywell*, 370 F.3d at 1144 (“Honeywell is presumptively estopped from recapturing equivalents to the inlet guide vane limitation.”).

known in the prior art in the field of the invention, it certainly should have been foreseeable at the time of the amendment. By its very nature, objective unforeseeability depends on underlying factual issues relating to, for example, the state of the art and the understanding of a hypothetical person of ordinary skill in the art at the time of the amendment. Therefore, in determining whether an alleged equivalent would have been unforeseeable, a district court may hear expert testimony and consider other extrinsic evidence relating to the relevant factual inquiries.

344 F.3d at 1369 (internal citation omitted).

Honeywell argues that in the 1982-83 timeframe, which the parties agree is the relevant period to consider, the use of DELPQP and IGV position to detect surge was unforeseeable. HSC disagrees, and points to an APU developed in the early 1970s called the L1011.² The L1011, like the APS 3200, measures a static pressure differential which can be indicative of surge only if the APU is experiencing low flow. (D.I. 417 ¶¶ 237-40.) However, instead of distinguishing between high flow and low flow through IGV position, the L1011 utilizes what is known as a “shock” switch. When the air flow reaches the speed of sound, a shock wave activates the shock switch and indicates to the surge control system that the APU is experiencing high flow. In spite of this difference, HSC demonstrated at trial that the use of IGV position to distinguish between high flow and low flow was in fact foreseeable to one skilled in the art in 1982-83. (Id. ¶¶ 246-54.) Indeed, it seems quite intuitive to this lay court that measuring IGV position (i.e., are the inlet guide vanes open a lot or a little?) is a reasonably obvious way – both at present and in 1982-83 – to determine whether the

²In support of their respective positions both sides adduced sufficient evidence at trial from which one could reasonably conclude that either party’s position is correct. The court, therefore, is forced to resolve disputed issues of material fact. While a fair reading the trial transcript might give the impression that resolution of those disputed facts is a close call, the court, after observing witness demeanor and assessing witness credibility first hand, does not believe such resolution is a particularly close call after all. However, due to the volume of evidence this case has produced over the course of the last seven years, it would be unduly burdensome to explain the rationale for accepting or rejecting every exhibit or line of testimony in the record. It is sufficient, in this court’s view, to merely demonstrate that all factual conclusions are supported by substantial evidence.

APU is experiencing high flow or low flow. Therefore, Honeywell has failed to rebut the presumption of surrender through the unforeseeability criterion.

B. Tangential Relation

Unlike that of the unforeseeability criterion, the relatively recent vintage of the tangential-relation criterion places the court in waters that have yet to be fully charted.³ Fortunately, a brief survey of the Federal Circuit's case law provides the court with sufficient guidance in this case to confidently conclude that the reason for Honeywell's amendment bears more than a tangential relationship to HSC's equivalent. Beginning with *Pioneer Magnetics, Inc. v. Micro Linear Corp.*, which was decided after the Supreme Court's decision in *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722 (2002) ("*Festo II*"), but before the Federal Circuit's *en banc* decision in *Festo III*, the baseline principle was established that an amendment is "not tangential to the equivalent in question" where "the amendment was made to avoid the very prior art that contained the equivalent." 330 F.3d 1352, 1357 (Fed. Cir. 2003). "It does not follow, however, that equivalents not within the prior art must be tangential to the amendment." *Chimie v. PPG Indus.*,

³Indeed, such charting will be necessary given the potential dangers lurking beneath the surface. For example, if the overarching *Festo* question is whether the patentee can show that "one skilled in the art could not reasonably be expected to have drafted a claim that would have literally encompassed the alleged equivalent," *Festo III*, 344 F.3d at 1365, then the rationale underlying the amendment (i.e., whether or not it is tangentially related to the alleged equivalent) does not seem particularly probative of the answer. In other words, the tangential-relation criterion directly addresses the question of whether the patentee *would* have drafted a claim to literally encompass the alleged equivalent, but it does not necessarily address the question of whether the patentee *could* have so drafted the claim. Cf. *Honeywell Int'l, Inc. v. Hamilton Sunstrand Corp.*, No. 99-309, 2006 U.S. Dist. LEXIS 11829, at *15 (D. Del. Mar. 22, 2006) (regarding the "some other reason" criterion, explaining that "the court will only consider testimony from [a patent attorney] as to why he *could not* (as opposed to *would not*) have drafted the claims to encompass the equivalent") (emphasis in original). With the passage of time, further developments in the case law will hopefully provide GPS-like guidance to courts navigating these waters. In the meantime, however, it will probably be necessary to simply knock the rust off the old sextant and hope for the best.

Inc., 402 F.3d 1371, 1383 (Fed. Cir. 2005). Rather, the focus of the tangential-relation criterion is “the patentee’s objectively apparent reason for the narrowing amendment.” *Festo III*, 344 F.3d at 1369. The presumption of surrender arises if the “amendments were made to distinguish prior art patents based, *at least in part*, on the [narrowed limitation] of the invention.” *Id.* at 1373 (emphasis added). *See also Talbert Fuel Sys. Patents Co. v. Unocal Corp.*, 347 F.3d 1355, 1360 (Fed. Cir. 2003) (explaining that the amendment could not “be deemed ‘tangential’ to the . . . alleged equivalent” where the narrowed limitations of the invention “were at issue during prosecution, and were the direct, not tangential, reason for the narrowing amendments to [the] claim limitations”); *Terlep v. Brinkmann Corp.*, 418 F.3d 1379, 1385-86 (Fed. Cir. 2005) (same); *Bus. Objects, S.A. v. Microstrategy, Inc.*, 393 F.3d 1366, 1374 (Fed. Cir. 2005) (same). Moreover, if “[t]he prosecution history reveal[s] no reason for the amendment, [the patentee cannot] show that the rationale underlying the amendment was only tangential to the accused . . . equivalent.”⁴ *Biagro W. Sales, Inc. v. Regents of the Univ. Of Cal.*, 423 F.3d 1296, 1306 (Fed. Cir. 2005). Thus, unless it is “clear” that the rationale underlying the amendment is only peripheral to the alleged equivalent, the tangential-relation criterion is impotent to rebut the presumption of surrender. *Amgen, Inc. v. Hoechst Marion Roussel, Inc.*, No. 05-1157, 2006 U.S. App. LEXIS 19799, at *62 (Fed. Cir. 2006).

Although this places a heavy burden on the patentee, it is not an impossible burden to carry. For example, in *Insituform Techs., Inc. v. Cat Contracting, Inc.*, the patent at issue related to a method of impregnating a flexible tube with resin through the “application of [a] vacuum through a window in the wall of the tube by means of a cup applied to the window, as well as repositioning

⁴The court notes that rebuttal via the tangential-relation criterion is not unavailable merely because the reason for the amendment was not explicitly stated by the patentee in the prosecution history. Rather, rebuttal via the tangential-relation criterion is unavailable if there is no “objectively apparent reason for the narrowing amendment,” *Festo III*, 344 F.3d at 1369.

the cup [as the resin progresses toward the vacuum]”. 385 F.3d 1360, 1369 (Fed. Cir. 2004). Originally, however, the application claim at issue did not include reference to the repositionable cup. *Id.* at 1368-69. It was only during prosecution that the patentee amended the claim to include reference to the repositionable cup in order to avoid prior art having a vacuum source only at the far end of the tube, and therefore requiring a much larger suction compressor than the patented invention. *Id.* at 1369. Similar to (but not identical to) the patented invention, the accused device applied multiple vacuum sources to the tube by means of multiple repositionable cups. *Id.* at 1363. Under those facts, the Federal Circuit concluded that “the reason for the narrowing amendment was peripheral, or not directly relevant, to the alleged equivalent” because the patentee “made it clear that the difference between its process and [the prior art] was that its process did not have the disadvantage . . . of a large compressor at the end of the [tube].” *Id.* at 1370 (quoting *Festo III*, 344 F.3d at 1365). Moreover, there was “no indication in the prosecution history of any relationship between the narrowing amendment and a multiple cup process.” *Insituform*, 385 F.3d at 1370. Thus, the court held that the presumption of surrender was successfully rebutted. *Id.*

The patentee also carried its burden in *Primos, Inc. v. Hunter’s Specialties, Inc.*, where the technology at issue was a “Game Call Apparatus” used by hunters to lure their prey. 451 F.3d 841, 843 (Fed. Cir. 2006). The two relevant limitations of the claim at issue were (1) a plate extending over (2) a membrane. *Id.* at 844. During prosecution, the claim was narrowed to include only plates that are “differentially spaced” above the membrane. *Id.* at 849. The accused device did not have a plate at all, but rather it had a dome extending over the membrane. *Id.* at 844. The patentee contended that the dome of the accused device was equivalent to the plate described in the patent, whereas the alleged infringer argued that the narrowing amendment barred a finding of infringement

under the doctrine of equivalents. *Id.* at 848-49. The Federal Circuit, noting that “the territory surrendered by the ‘differentially spaced’ amendment comprises plates that are not differentially spaced above the membrane,” held that the differentially-spaced dome of the accused device was only tangentially related to the rationale underlying the amendment. *Id.* at 849. Thus, as it had done in *Insituform*, the Federal Circuit held that the presumption of surrender was successfully rebutted. *Id.*

As stated above, the court assumes *arguendo* that Honeywell is correct that the equivalent element is properly characterized as “the Sunstrand APS 3200 surge control system with its unique DELPQP flow-related parameter and its particular use of inlet guide vane position as part of the high-flow logic that that parameter occasioned.” (D.I. 416 ¶ 66.) With that articulation of the equivalent in mind, Honeywell argues that “[t]he objectively apparent reason for the amendments at issue was to include additional limitations from the original dependent claims in order to overcome prior art that had nothing to do with inlet guide vanes but rather disclosed a surge control system with P and Delta P sensors and proportional and integral control.” (*Id.* ¶ 216.) Although the prior art cited by the examiner does not contain the precise equivalent at issue, Honeywell glosses over the fact that DELPQP is a parameter also calculated by measuring P and Delta P. (See *id.* ¶ 54.) Thus, both the prior art avoided by the amendments and the equivalent in question involve the same (or very similar) pressure measurements, and therefore, it is not “clear” that the amendments had no more than a tangential relationship with the equivalent.

Honeywell’s attempts to analogize this case to *Insituform* and *Primos* are unconvincing. In *Insituform*, the amendment was clearly designed to distinguish the prior art based on the location of the vacuum source through the use of repositionable cups, and therefore the number of cups used

by the alleged equivalent was merely tangential to the rationale underlying the amendment. Likewise in *Primos*, the amendment was clearly designed to distinguish the prior art based on the differential spacing between the membrane and the plate, and therefore the shape of the plate was merely tangential to the rationale underlying the amendment. Here, by contrast, the amendments were clearly designed, *at least in part*, to distinguish the measurement of P and Delta P found in the prior art, and therefore the use of that measurement by the equivalent (as articulated by Honeywell) is directly related to the rationale underlying the amendments. The court thus holds that Honeywell has failed to rebut the presumption of surrender through tangential-relation criterion.

C. Some Other Reason

In light of this court's holding in *Honeywell Int'l, Inc. v. Hamilton Sunstrand Corp.*, No. 99-309, 2006 U.S. Dist. LEXIS 11829, at *15 (D. Del. Mar. 22, 2006), Honeywell has elected to concede this method of rebuttal pending appeal.

IV. CONCLUSION

For the reasons explained above, the court holds that Honeywell has failed to rebut the presumption of surrender, and therefore, it is barred by prosecution history estoppel from asserting the doctrine of equivalents. Accordingly, the jury's finding of infringement must be overturned and judgment must be entered in HSC's favor.

Dated: August 14, 2006

/s/ Gregory M. Sleet
UNITED STATES DISTRICT JUDGE

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

HONEYWELL INTERNATIONAL, INC.,)
AND HONEYWELL INTELLECTUAL)
PROPERTIES, INC.,)

Plaintiffs,)

v.)

HAMILTON SUNSTRAND CORP.,)

Defendant.)

C.A. No. 99-309 (GMS)

ORDER

IT IS HEREBY ORDERED THAT:

1. The verdict and judgment (D.I. 264, 265) be VACATED; and
2. Judgment be ENTERED in favor of the defendant.

Dated: August 14, 2006

/s/ Gregory M. Sleet
UNITED STATES DISTRICT JUDGE